



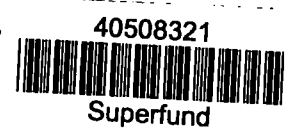
KANSAS

DEPARTMENT OF HEALTH & ENVIRONMENT

BILL GRAVES, GOVERNOR

Gary R. Mitchell, Secretary

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February 4, 1998

Jeffrey G. Weatherford
SUPR/EFLR
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Subject: American Zinc, Lead, and Smelting Company Site, Caney, Kansas

Dear Mr. Weatherford:

Please find enclosed the following: (1) a map showing the locations of boreholes and test pits completed to date by Dames & Moore and USEPA; and (2) a revised schematic cross section of the proposed cut-off wall barrier, stockpile, and leachate collection system, based on borehole data collected by USEPA on January 26-27, 1998.

The validity of the borehole and test pit data presented by Dames & Moore in a Geotechnical Investigation Report (December 12, 1997) and used to develop the schematic cross section in the EE/CA (Figure D-2), has been questioned by both USEPA and KDHE. In response, on January 26th and 27th, 1998, USEPA drilled six (6) boreholes in the area of the proposed stockpile to determine the thickness of smelter waste and native lithologies beneath the smelter material. A limestone bed, identified by Dames & Moore as ranging from 7 to 12 feet below ground surface, was not found during the USEPA drilling. However, USEPA did identify calcareous shale and interbedded, thin limestone stringers at a depth ranging from 14.5 to 17.5 feet below ground surface in several of the boreholes. In response to these findings, KDHE proposes the following with regard to the design of the cut-off wall barrier and leachate collection trench.

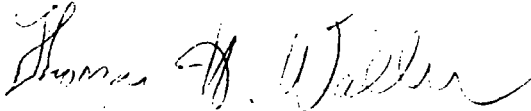
1. Seat the base of the *Clay/Bentonite Groundwater Cut-Off Wall* in the upper one (1) foot of the calcareous shale and interbedded limestone stringer unit. This will ensure that a sufficient interval of native shale is present below the smelter material to prevent "wicking up" of groundwater by capillary action from below; and
2. Seat the base of the *Leachate Collection Trench* in the upper one (1) foot of the calcareous shale and interbedded limestone stringer unit. KDHE believes that any groundwater which might penetrate the asphaltic concrete cap and percolate through the smelter material and the underlying shale would, when reaching the calcareous shale and interbedded limestone stringer unit, migrate laterally and downgradient to the leachate

collection trench.

Physical characteristics of the calcareous shale and interbedded limestone stringer unit suggest that it is as impermeable or more impermeable than the overlying shale and thus would be a barrier to downward percolation of contaminated groundwater.

If you have questions or comments, please feel free to contact me at 785-291-3249.

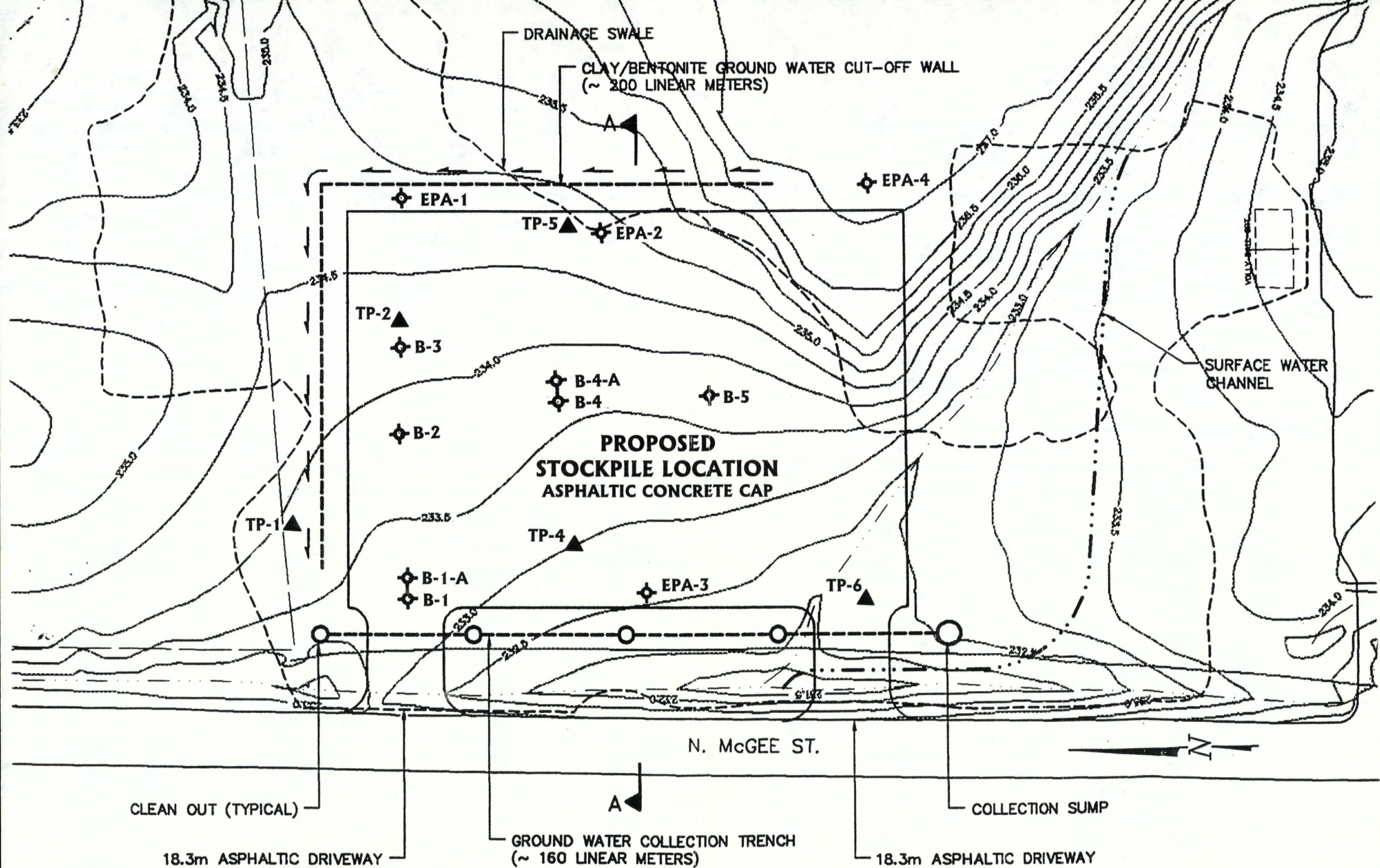
Sincerely,

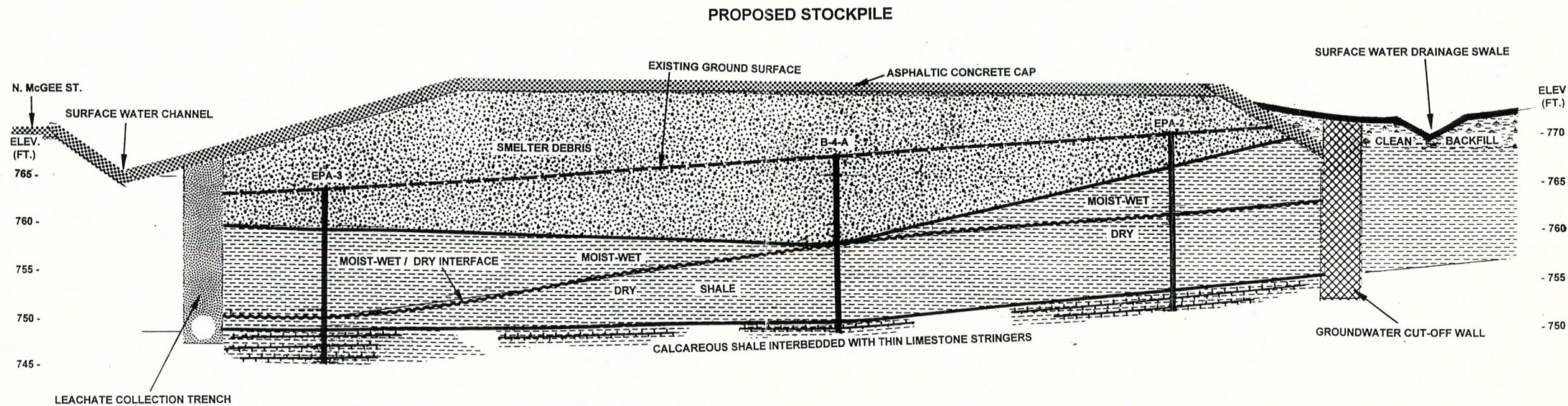
A handwritten signature in cursive script, appearing to read "Thomas H. Waller".

Thomas H. Waller, Ph.D.
Environmental Geologist/Project Manager
Superfund Unit/Assessment and Restoration Section
Bureau of Environmental Remediation

enclosures

c: Randy Carlson → Leo Henning → American, Zinc, Lead, and Smelting Co. Site File (2.1)





**PROPOSED STOCKPILE,
AMERICAN ZINC, LEAD, AND SMELTING CO. SITE, CANEY, KANSAS**